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FORM PTO-1390
(REV. 7-2005)

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

ATTORNEY'S DOCKET NUMBER
11548-002-999

U.S. APPLICATION NO. (if known, see 37CFR 1.5)

10/566953

**TRANSMITTAL LETTER TO THE UNITED STATES
DESIGNATED/ELECTED OFFICE (DO/EO/US)
CONCERNING A SUBMISSION UNDER 35 U.S.C. 371**

INTERNATIONAL APPLICATION NO. PCT/US2004/024752	INTERNATIONAL FILING DATE July 30, 2004	PRIORITY DATE CLAIMED August 1, 2003
TITLE OF INVENTION SYSTEMS AND METHODS FOR BIOPOLYMER ENGINEERING		
APPLICANT(S) FOR DO/EO/US Gustafsson et al.		

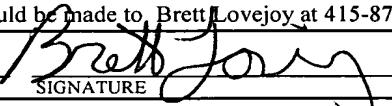
Applicant herewith submits to the United States Designated/ Elected Office (DO/EO/US) the following items and other information:

1. This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.
4. The U.S. has been elected (Article 31).
5. A copy of the International Application as filed (35 U.S.C. 371(c)(2)).
 - a. is attached hereto (required only if not communicated by the International Bureau).
 - b. has been communicated by the International Bureau.
 - c. is not required, as the application was filed in the United States Receiving Office (RO/US)
6. An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).
 - a. is attached hereto.
 - b. has been previously submitted under 35 U.S.C. 154(d)(4).
7. Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))
 - a. are attached hereto (required only if not communicated by the International Bureau).
 - b. have been communicated by the International Bureau.
 - c. have not been made; however, the time limit for making such amendments has NOT expired.
 - d. have not been made and will not be made.
8. An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).
10. An English language translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

Items 11. to 20. below concern document(s) or information included:

11. An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
12. An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13. A preliminary amendment.
14. An Application Data Sheet under 37 CFR 1.76.
15. A substitute specification.
16. A power of attorney and/or change of address letter.
17. A computer-readable form of the sequence listing in accordance with PCT Rule 13ter 2 and 37 CFR 1.821- 1.825.
18. A second copy of the published International Application under 35 U.S.C. 154(d)(4).
19. A second copy of the English language translation of the International Application under 35 U.S.C. 154(d)(4).
20. Other items or information: International Publication NO. WO 2005/013090 A2 dated February 10, 2005 (of PCT/US2004/024752)

This collection of information is required by 37 CFR 1.414 and 1.49.1-1.492. The information is required to obtain or retain a benefit by the public, which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 15 minutes to complete, including gathering information, preparing, and submitting the completed form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

US APPLICATION NO. (If known, see 7 CFR 1.5) 107566953		INTERNATIONAL APPLICATION NO. PCT/US2004/024752	ATTORNEY'S DOCKET NUMBER 11548-002-999
<p>The following fees are submitted:</p> <p>21. <input checked="" type="checkbox"/> Basic national fee \$300.00</p> <p>22. <input checked="" type="checkbox"/> Examination fee.....</p> <p>Was the Written Opinion prepared by the ISA/USPTO or did the International Preliminary Examination Report prepared by the USPTO indicate that all filed claims in this U.S. application satisfy provisions of PCT Article 33(1)-(4) (i.e., novelty, inventive step and industrial capability)?</p> <p><input checked="" type="checkbox"/> i) Yes (\$200.00)..... \$200.00</p> <p><input type="checkbox"/> ii) No (\$0.00).....</p> <p>23. <input checked="" type="checkbox"/> Search fee</p> <p>Did the Written Opinion of the ISA/USPTO or the International preliminary examination report prepared by the USPTO indicate that all claims satisfy provisions of PCT Article 33(1)-(4) (i.e., novelty, inventive step and industrial capability)?</p> <p><input type="checkbox"/> i) Yes (\$100.00)..... \$100.00</p> <p>ii) If no:</p> <p><input checked="" type="checkbox"/> (a) A Search Fee has been paid on the international application to the USPTO as an International Search Authority. (\$100.00)</p> <p><input type="checkbox"/> (b) An International Search Report prepared by an ISA other than the US and provided to the Office or previously communicated to the US by the IB. (\$400.00)</p> <p><input type="checkbox"/> (c) All other situations (\$500.00).....</p>			
TOTAL OF CALCULATIONS =			
\$ \$600.00			
<p><input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing of computer programs listing filed in electronic medium). The fee is \$250 for each additional 50 sheets of paper or fraction thereof.</p>			
Total Sheets 195 -100	Extra Sheets 95 /50	Number of each additional 50 or fraction thereof (round up to a whole number). 2	RATE x 250.00
			\$500.00
<p>Surcharge of \$130.00 for furnishing the oath or declaration later than 30 months from the earliest claimed priority date (37 CFR 1.492 (e)).</p>			
\$ \$0.00			
CLAIMS Total Claims	NUMBER FILED 116 - 20	NUMBER EXTRA 96	RATE X x \$50.00
Independent Claims 4 - 3		1	x \$200.00
\$4800.00			
<p><input type="checkbox"/> MULTIPLE DEPENDENT CLAIM(S) (if applicable)</p>			
+ 360.00			
\$0.00			
TOTAL OF ABOVE CALCULATIONS=			
= \$ \$5800.00			
<p><input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. The fees indicated above are reduced by 50%</p>			
- \$ \$2900.00			
SUBTOTAL =			
\$ \$2900.00			
<p>Surcharge of \$130.00 for furnishing the English Translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(f)).</p>			
\$0.00			
TOTAL NATIONAL FEE			
= \$ \$2900.00			
<p>Fee for recording the enclosed assignment (37 CFR 1.21 (h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). 1 x \$40.00 per property</p>			
\$ \$40.00			
TOTAL FEES ENCLOSED			
= \$ \$2940.00			
Amount to be refunded:			
charged: 2940.00			
<p>a. <input type="checkbox"/> A check in the amount of \$ to cover the above fees is enclosed.</p> <p>b. <input checked="" type="checkbox"/> This is an estimate of the fees due. Please charge Deposit Account No. 50-3013 to cover the required fees. A copy of this sheet is enclosed.</p> <p>c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 50-3013. A copy of this sheet is enclosed.</p>			
<p>Note: Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137 (a) or (b)) must be filed and granted to restore the International Application to pending status.</p>			
<p>24. <input checked="" type="checkbox"/> All correspondence for this application should be mailed to JONES DAY 20583</p> <p>25. <input checked="" type="checkbox"/> All telephone inquiries should be made to, Brett Lovejoy at 415-875-5744.</p>			
Brett Lovejoy NAME		 Brett Lovejoy SIGNATURE	
		42,813 REG. NO.	January 31, 2006 DATE